3. Restore earthquake damaged state infrastructure within the basin. *[For additional information regarding this objective, refer to pages 3-1 to 3-10 and 6-1 to 6-4 in the Capitol Lake Adaptive Management Plan - 1999 to 2001 (1999).]*

BACKGROUND

Deschutes Parkway

Deschutes Parkway is a 1.6 mile long major connector road between Interstate 5, Tumwater, downtown Olympia and Olympia's west side. It also offers a popular walking and jogging path, and provides access to Marathon Park, the Capitol Lake Interpretive Center and 324 parking stalls. Over 7,000 vehicles traveled the parkway during the work week prior to the February 28, 2001 earthquake, and the northern half of the road will remain closed until repaired.

Replace Existing Option

After the 2001 Nisqually earthquake, soil shifted from beneath the roadway in several areas and moved toward Capitol Lake. The earthquake's motion caused various layers of soil to mix together, making some parts of the road buckle, separate and drop. In some areas, sidewalks dropped two to three feet and sections of the road cracked and fell. Unstable soil under parts of the roadbed has slipped away. In other areas, the sidewalk and roadbed stayed in place and surrounding earth did not. The material under the roadway has dropped away in some places, leaving large voids beneath the concrete and asphalt.

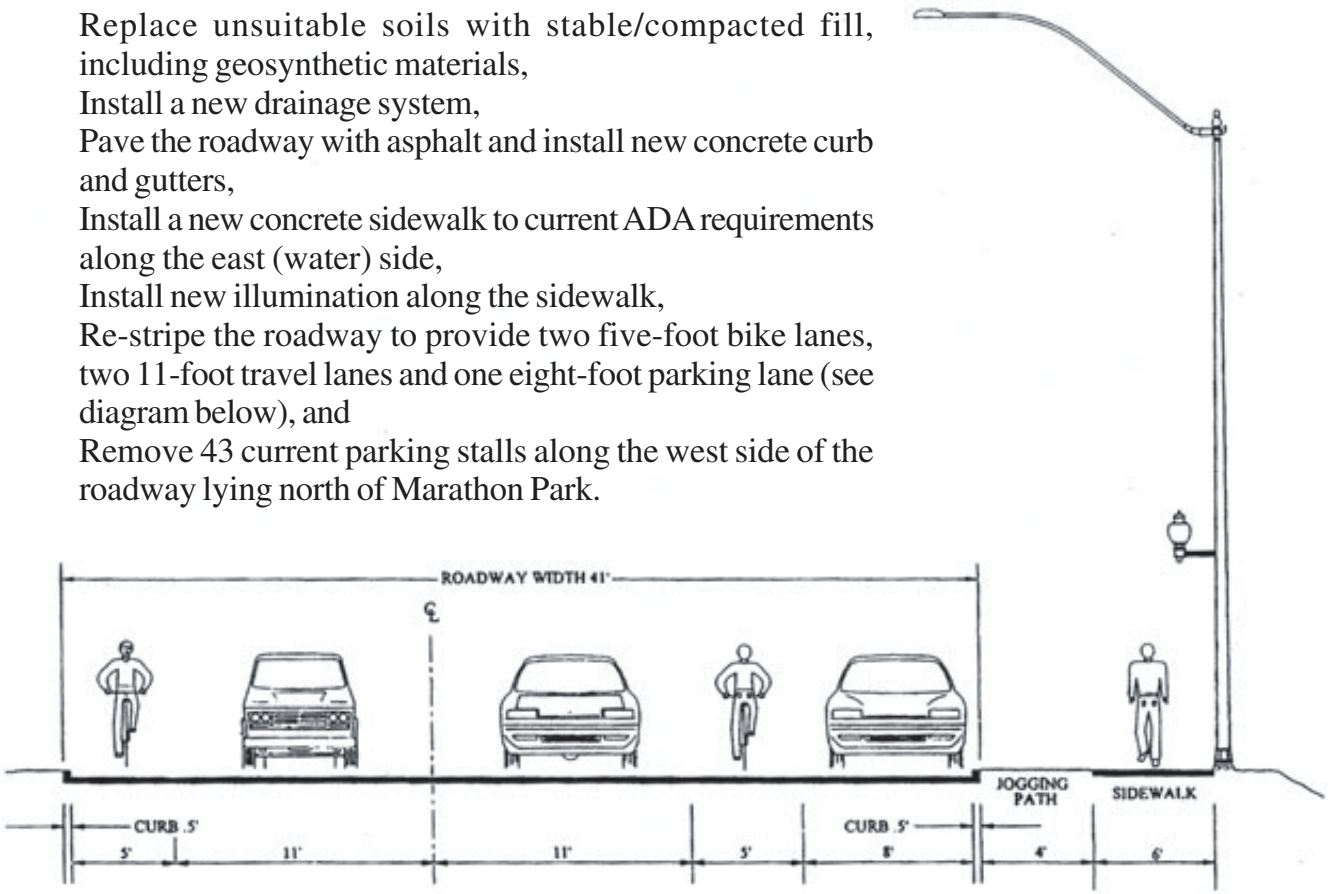
The Department of General Administration contracted with the Washington State Department of Transportation (WSDOT) to study the effects of the earthquake and determine long-term repair solutions for Deschutes Parkway. GA has identified a preferred approach to restore Deschutes Parkway based upon various factors, including cost, delay, impact upon LOTT sewer construction, and input from stakeholder groups and the public.

Damaged road bed and sidewalk on Deschutes Parkway. Courtesy of Thurston Regional Planning Council, 2001.

Sinkhole caused by damaged culvert on Deschutes Parkway. Courtesy of Thurston Regional Planning Council, 2001.

The preferred approach would return Deschutes Parkway to its preexisting condition with some modifications. This work will:

- Replace unsuitable soils with stable/compacted fill, including geosynthetic materials,
- Install a new drainage system,
- Pave the roadway with asphalt and install new concrete curb and gutters,
- Install a new concrete sidewalk to current ADA requirements along the east (water) side,
- Install new illumination along the sidewalk,
- Re-stripe the roadway to provide two five-foot bike lanes, two 11-foot travel lanes and one eight-foot parking lane (see diagram below), and
- Remove 43 current parking stalls along the west side of the roadway lying north of Marathon Park.



Deschutes Parkway - Replacement Cross Section

Prior to the Nisqually earthquake there were approximately 380 parking stalls on Deschutes Parkway - 64 on the west side and 316 on the east side - with 249 of these located between Lakeridge Drive and 5th Avenue. Once the Parkway is rebuilt there will be 341 parking spaces - of which 196 will be located between Lakeridge Drive and 5th Avenue.

It is estimated that the repair will be completed by the spring of 2003. This approach will enhance the pre-earthquake road and enable better performance in an earthquake similar to the February 28, 2001 Nisqually quake. However, the road will not be earthquake resistant and will not meet the City of Olympia's road standards for surface amenities, such as parking lanes and sidewalks.

Rebuilding the existing road is preferred due to cost and time constraints. The earthquake resistant improvements would cost an additional $9 to $11 million, and repairing the road to meet current city standards would cost an additional $3 million, plus the acquisition cost of more land to widen the road. It is thought that it will be very difficult to receive state funding for these additional improvements, and there is uncertainty as to whether additional federal funding is available. Comments from public meetings indicate that the community wants the entire road to be repaired and reopened as soon as possible.

Deschutes Parkway Reconstruction Schedule

August 2001 – September 2001	-- Schematic Design.
October 2001 – December 2001	-- Environmental review and design development
January 2002 – February 2002	-- Permit application, determine mitigation, and design continuation
March - May 2002	-- Finalize permits and design
Mid-May 2002	-- Advertise & bid project for construction
Mid-June 2002	-- Bid opening
July 1, 2002	-- Contractor mobilizes (road closes for construction)
October 31, 2002	-- Road opens
May 1, 2003	-- Project complete with landscaping

The most recent estimated cost of the preferred approach is $6,280,000, which will be paid for by Federal Highway emergency funds (FHWA) and $820,000 from State earthquake repair funds.

Activities in Years 2003 - 2005:

None

CLAMP Budget 2003 - 2005:

None

Activities in Years 2005 - 2013:

No specific activities are planned beyond rebuilding the parkway.

CLAMP Budget 2005 - 2013:

None

ADDITIONAL BACKGROUND

Marathon Park

Marathon Park was built in 1969. It offers approximately two acres of turf, restroom facilities, picnic tables, 55 parking stalls, a stretching station for joggers, and a dock in the North Basin of Capitol Lake. The Nisqually earthquake caused subsidence in the park, cracks in the parking lot surface and severed utility lines to the restroom. As a result of the damage the entire park will be reconstructed.

Like Deschutes Parkway, Marathon Park was constructed on fill material, which rested over various layers of soil. During the earthquake these soil layers were mixed, and pressurized water from below was forced to the surface, creating sand boils all over the park. Engineers have monitored the ground activity in Marathon Park and the area seems to have stabilized. A trail through the park is open to pedestrians, but the majority of the park will remain closed until reconstruction is complete - estimated to be December 2003.

Capitol Lake Interpretive Center

The Capitol Lake Interpretive Center was also severely damaged by the earthquake. The Interpretive Center consists of restrooms, a walking trail with wooden footbridges and a fishing dock. The walking trail through the wetlands crumbled and dropped up to 12 feet in some areas. The wooden footbridges sustained minor damage. All utilities to the restroom were severed. Like Marathon Park, it seems to have settled and no longer appears to be shifting.

Restroom facilities at Marathon Park were severely damaged. Courtesy of Thurston Regional Planning Council, 2001.

Earthquake damage to the trail at the Interpretive Center. Courtesy of Thurston Regional Planning Council, 2001.

Activities in Years 2003 - 2005:

GA has worked with the Federal Emergency Management Agency (FEMA) to establish an estimate for the repair cost to both Marathon Park and the Interpretative Center. Seventy-five percent (75%) of the funding for reconstruction of Marathon Park and the Interpretive Center will be provided by FEMA, with the remaining 25% from State earthquake repair funds. It is likely that the repairs to Marathon Park and the Capitol Lake Interpretive Center will be initiated and completed in this time frame.

CLAMP Budget 2003 - 2005:

The estimated reconstruction cost for Marathon Park is $584,000. The estimated reconstruction cost for the Capitol Lake Interpretive Center is $363,000. Costs for both will be shared by FEMA and the State on a 75/25 basis. The reconstruction of Marathon Park and the Capitol Lake Interpretive Center is anticipated by December 2003.

Activities in Years 2005 - 2013:

No specific activities are planned at this time.

CLAMP Budget 2005 - 2013:

None.

LOTT Southern Connection

To reconstruct Deschutes Parkway, GA will also be required to coordinate with the LOTT Wastewater Alliance regarding the installation of the *Southern Connection* sewer interceptor. This facility will be located within the right-of-way along Deschutes Parkway from Tumwater Falls to LOTT's Capitol Lake Pump Station, located north and west of Marathon Park.

The February 28, 2001 earthquake delayed the placement of the LOTT sewer transmission line in Deschutes Parkway. The current wastewater pipe is at its maximum capacity, and enabling LOTT to proceed with the installation of the sewer line is critical to the sewage management needs of the community. LOTT anticipates completion of the *Southern Connection* in early 2003. LOTT has negotiated easements with GA that ensure that the pipelines will be done in cooperation with the Deschutes Parkway reconstruction and will remain where they are placed - even if the Deschutes Parkway should eventually be relocated.

The LOTT Wastewater Alliance will incorporate many improvements to Heritage Park during the placement of their utility lines in the park. These improvements include fire hydrants, fencing, an asphalt access road, and a new foot bridge (see below) that will connect Heritage Park to Marathon Park. The total cost of the Capitol Lake Pump Station is approximately $3.3 million. The cost of the *Southern Connection* in both Olympia and Tumwater is estimated at $9.6 million.

Proposed new footbridge between Heritage and Marathon parks.
Photo courtesy LOTT Wastewater Alliance, 2001.